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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/817,365	03/22/2001	Teiji Yamamoto	010417	2367

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EXAMINER	
PICKARD, ALISON K	

ART UNIT	PAPER NUMBER
3676	

DATE MAILED: 08/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/817,365	YAMAMOTO ET AL.	
	Examiner	Art Unit	
	Alison K. Pickard	3676	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2 and 4-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *4-6* is/are allowed.

6)☒ Claim(s) *1,2 and 7-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 12, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Baylor (4,426,091).

Baylor discloses a seal assembly comprising a pair of seal rings comprising lip portions 52, 54 that protrude in opposite axial directions, a load seal ring 42 compressed and inserted between the seal rings and exerting reaction forces on the lips, and an inner diameter controller body 44 in contact with the load ring. The seal ring has a groove 58 (or 106) tolerates axial compression. The seal ring has an inner surface (such as at 74 or any portion of 42 below lips 52/54) having an axial direction length less than that of an outer peripheral surface (surface extending from 80 to 84).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Baylor in view of Peguet (2,877,029).

Baylor does not disclose an outer-diameter controller body. Peguet teaches a sealing assembly comprising first and second seal rings each having a lip, a load ring, and an inner diameter body. Peguet teaches that the sealing assembly can be mounted in two ways (see Fig. 2 and 3). Peguet teaches using casing 7/4 and an outer body 6 to mount the sealing assembly on a shaft so that the lips remain in sealing contact. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the seal of Baylor by using the casing and outer body 6 taught by Peguet so that the seal assembly can be mounted in a variety of environments as a unitary structure while maintaining an effective seal.

5. Claims 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taft (5,183,318) in view of Baylor (4,426,091).

Taft discloses a crawler-track connection comprising a pin 41 inserted through links 16, bushings 54 and 50, and a seal assembly (e.g. 60) disposed between radial walls of the two bushings. Taft does not disclose the seal assembly comprises a load ring disposed between and exerting pressure on first sand second seal rings each comprising lip portions. Baylor teaches an improved sealing assembly for crawler-track connections. Baylor teaches a sealing assembly comprising a pair of seal rings comprising lip portions 52, 54 that protrude in opposite axial directions, a load seal ring 42 compressed and inserted between the seal rings and exerting reaction forces on the lips, and an inner diameter controller body 44 in contact with the load ring. The length of the inner side of the seal ring (i.e. near 74) is less than the distance between the radial walls since the lips extend further axially and accommodate compressions. Baylor teaches using the two lips and load ring to ensure sealing contact against both surfaces (of the bushings) while accommodating axial compressions. The ring body 44 offers rigidity and limits

displacement of the seal assembly. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the connection of Taft by using the seal assembly taught by Baylor to ensure improved sealing engagement while allowing displacement of pieces of the connection.

6. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Taft in view of Baylor as applied to claims 7 to 9 above, and further in view of Johnson.

Neither Taft nor Baylor discloses a dust seal ring on an outer peripheral side of the seal assembly. Johnson teaches a dust seal 114 on an outer side of a seal assembly to minimize the seal's exposure to abrasive material. It would have been obvious for one of ordinary skill in the art at the time the invention was made to use the dust seal of Johnson to protect the seal assembly form dust and abrasive material, creating a more effective and longer lasting sealing assembly.

Allowable Subject Matter

7. Claims 4-6 are allowed.

Response to Arguments

8. Applicant's arguments filed 4-26-04 have been fully considered but they are not persuasive.

As seen in the Figures, Baylor discloses a load ring (similar to Applicant's Figure 1A, for example) having an outer surface (of 80 to 84) separated by groove (e.g. 58) that is longer than an inner peripheral surface, such as at 74. Baylor also discloses that the lips (i.e. outer peripheral surface) flex in compression (see col. 3, lines 36-50). The inner side length is also less than the distance between walls so that this compression and flexing can occur.

Regarding the outer controller body taught by Peguet, the outer body 6 controls displacement of a load ring in that the ring would not be able to move radially past this body.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alison K. Pickard whose telephone number is 703-305-0882. The examiner can normally be reached on M-F (10-7:30), with alternate Friday's off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Swann can be reached on 703-306-4115. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Alison K. Pickard
Primary Examiner
Art Unit 3676

AP